

A1 --Talking about its manufacturing method, firstly the first protective insulating film 103 is formed on the semiconductor substrate 101 provide with the electrode pad 102. The first opening section 103a is formed on the first protective insulating film 103 so as to expose the electrode pad 102. The metal layer 104 is formed in the first opening section 103a and on the first protective insulating film 103, by sputtering or vapor deposition. Subsequently, a resist is applied on the metal layer 104. An opening section is made in the resist so that exposure and development of the resist prepares an area in which the outgoing line 109 is formed.--

Please replace the paragraph beginning on page 13, line 21 with the following rewritten paragraph:

A2 --The following describes a first embodiment of the present invention, referring to Figure 1 through Figures 3(a) to 3(c).--

Please replace the paragraph beginning on page 19, line 12 with the following rewritten paragraph:

A3 --Furthermore, regarding the semiconductor device as a whole, formed on the semiconductor substrate 1 is a wire pattern that is to be connected to the semiconductor element. On the wire pattern, a plurality of the electrode pads 2 are formed at intervals. The electrode pads 2 are electrically connected to the wire pattern. Further, the first insulating layer 3 is formed on the wire pattern. Moreover, a plurality of the wires 6 are formed on the first insulating layer 3. The wires 6 have an end that is connected to the electrode pad 2 via the first opening section 3c. Moreover, the wires 6 detour so that they do not touch each other, and are connected to the external connection terminal 9.--

Please replace the paragraph beginning on page 20, line 24 with the following rewritten paragraph:

A4 --Next, the first metal layer 4 is formed over the entire surface of the semiconductor substrate 1 by sputtering, in sequence that Ti-W is followed by Cu (Figure 2(a)). Then, in a photosensitive resist 11, a resist opening section 11a is created, by a photolithography method, on the region where the electrode pads 2 and wires 6 are formed. Subsequently, the second metal layer 5 is formed in the resist opening section 11a by electroplating of Cu (Figure 2(b)).--

Please replace the paragraph beginning on page 27, line 14 with the following rewritten paragraph:

A5 --After the first insulating layer 3 is formed, the first metal layer 4 is formed all over the semiconductor substrate 1 by sputtering, where Ti-W is applied first, then Cu (Figure 5(a)). By employing the photolithography method that uses the photosensitive resist 17, a resist opening section 17a is created on the region where the electrode 2 and the wire 15 are formed. Subsequently, the second metal layer 5 is formed by performing electroplating of Cu in the resist opening section 17a. Further, on the second metal layer 5, electroplating of Ni is carried out for forming the fourth metal layer 14 (Figure 5(b)). Here, the electroplating of Ni is possible because the first insulating layer 3 is formed on the entire surface of the semiconductor substrate 1.--

Please replace the paragraph beginning on page 29, line 1 with the following rewritten paragraph:

A⁶ --With the above manufacturing method, the third metal layer 16 can be formed only in the second opening section 8a, as in the first embodiment. This causes no gap formation between the second insulating layer 8 and the wire 15, even when the third metal layer 16, which includes Au having the good wetting properties with respect to the Su-Pb solder structuring the external connection terminal 9, is diffused into the external connection terminal 9, because the diffusion of the third metal layer 16 takes place only in the second opening section 8a. This prevents the water condensation in the gap formed between the second insulating layer 8 and wire 15, and avoids the connection failure caused by the water condensation. Therefore, the semiconductor device of high connection reliability can be attained. Furthermore, the thickness of the third metal layer 16 can be thinner, so that stress load on the side wall of the second opening section 8a can be reduced at the time of the electroless plating of Au in the second opening section 8a, and exfoliation and cracking of the second insulating layer 8 can be prevented.--

Please replace the paragraph beginning on page 30, line 9 with the following rewritten paragraph:

A⁷ --Here, described below is an example of a manufacturing process of the present embodiment, where the top and side surfaces of the second metal layer 5 are coated with the fourth metal layer 14, with reference to Figures 7(a) through 7(c). Note that, the manufacturing process has a step identical with that of the manufacturing process discussed earlier, up to Figure 5(a) where the first metal layer 4 is formed. Thus, the explanation of the step is not repeated, and the rest of the steps are discussed, here.--

Please replace the paragraph beginning on page 33, line 14 with the following rewritten paragraph:

A8 --Also with the manufacturing method, as the semiconductor device discussed previously, by covering the top and side surfaces of the second metal layer 5 with the fourth metal layer 14 made of Ni, it is possible to prevent the water condensation in the gap formed between the second insulating layer 8 and the wire 15, which may cause connection failure, and exfoliation and cracks of the second insulating layer 8. Therefore, the semiconductor device having high connection reliability can be attained.--

Please replace the paragraph beginning on page 34, line 3 with the following rewritten paragraph:

A9 --With the above arrangement, the protrudent electrode is made of Sn or a metal having Sn as its main component, while the metal layer is made of Au or a metal having Au as its main component. This gives the protrudent electrode good wetting properties, thereby adhesion of the protrudent electrode is better, compared to a case where the metal layer, which is in contact with the protrudent electrode, is made of a metal in the platinum group.--

Please replace the paragraph beginning on page 36, line 8 with the following rewritten paragraph:

A10 --A semiconductor device is preferably provided with a barrier metal layer made of Ni or a metal having Ni as its main component, on an entire top surface of the main conductor layer.--
